p3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| step | N' | D(t),p(t) | D(u),p(u) | D(v),p(v) | D(w),p(w) | D(y),p(y) | D(z),p(z) |
| 0 | x | ∞ | ∞ | 3,x | 6,x | 6,x | 8,x |
| 1 | xv | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| 2 | xvu | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| 3 | xuvw | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| 4 | xuvwy | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| 5 | xuvwyt | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| 6 | xuvwytz | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |

p5

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| node z table | x | y | u | v | z |
| v | ∞ | ∞ | ∞ | ∞ | ∞ |
| x | ∞ | ∞ | ∞ | ∞ | ∞ |
| z | 2 | ∞ | ∞ | 6 | 0 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| node z table | x | y | u | v | z |
| v | 3 | ∞ | 1 | 0 | 6 |
| x | 0 | 3 | ∞ | 3 | 2 |
| z | 2 | 5 | 7 | 5 | 0 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| node z table | x | y | u | v | z |
| v | 3 | 6 | 1 | 0 | 6 |
| x | 0 | 3 | 4 | 3 | 2 |
| z | 2 | 5 | 7 | 5 | 0 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| node z table | x | y | u | v | z |
| v | 3 | 6 | 1 | 0 | 6 |
| x | 0 | 3 | 4 | 3 | 2 |
| z | 2 | 5 | 7 | 5 | 0 |

p9

NO, this is because that decreasing link cost won’t cause a loop.Connecting two nodes with a link is equivalent to decreasing the link weight from infinite to the finite weight.